

We claim:

1. A process for removing trialkylammonium formate from methylolalkanes which have been obtained by condensation of formaldehyde with a higher aldehyde,  
5 which comprises decomposing trialkylammonium formate at elevated temperature in the presence of a hydrogen-containing gas over a catalyst comprising ruthenium supported on titanium dioxide.
2. A process as claimed in claim 1, wherein the catalyst has a ruthenium content of  
10 from 0.1 to 10% by weight.
3. A process as claimed in claim 1 or 2, wherein shaped titanium dioxide bodies which have been obtained by treatment of commercial titanium dioxide, before or after shaping, with from 0.1 to 30% by weight of an acid in which titanium dioxide  
15 is sparingly soluble are used.
4. A process as claimed in any of claims 1 to 3 carried out at from 100 to 250°C.
5. A process as claimed in any of claims 1 to 4 carried out at a pressure of from  
20  $1 \times 10^6$  to  $15 \times 10^6$  Pa.
6. A process as claimed in any of claims 1 to 5 carried out in the hydrogenation reactor of the hydrogenation process.
- 25 7. A catalyst comprising ruthenium supported on shaped titanium dioxide bodies, wherein the shaped titanium dioxide bodies are obtained by treatment of commercial titanium dioxide, before or after shaping, with from 0.1 to 30% by weight of an acid in which titanium dioxide is sparingly soluble.